

CLAIMS

Claims 1-78 (previously cancelled)

Claim 79 (previously presented): A capacitor comprising:

a substrate having a trench;

a barrier layer disposed over a surface of said trench;

a first electrode in contact with said barrier layer at a sidewall region;

a dielectric layer in contact with said first electrode and said barrier layer;

and

a second electrode in contact with said dielectric layer at a sidewall region, wherein at least one of said first and second electrodes comprises a uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film.

Claim 80 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises PT.

Claim 81 (previously presented): The capacitor according to claim 79, wherein said first electrode comprises said uniform, essentially carbon-free oxygen-annealed photo-decomposed platinum group metal film.

Claim 82 (previously presented): The capacitor according to claim 81, wherein said first electrode is a lower electrode.

Claim 83 (previously cancelled)

Claim 84 (previously cancelled)

Claim 85 (previously presented): The capacitor of claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film is oxidation resistant.

Claim 86 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises Rh.

Claim 87 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises Pd.

Claim 88 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises Os.

Claim 89 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises Ir.

Claim 90 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises Au.

Claim 91 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises Ag.

Claim 92 (previously presented): The capacitor according to claim 79, wherein said uniform, essentially carbon-free oxygen annealed photo-decomposed platinum group metal film comprises Ru.